



IFWP

RAW SEQUENCE LISTING DATE: 12/29/2005
 PATENT APPLICATION: US/10/561,487 TIME: 15:03:40

Input Set : A:\66168-03 Sequence Listing.txt
 Output Set: N:\CRF4\12292005\J561487.raw

3 <110> APPLICANT: The Government of the United States of America as
 4 represented by the Secretary of the Department of Health and
 5 Human Services
 6 Drayna, Dennis
 7 Kim, Un-kyung
 9 <120> TITLE OF INVENTION: VARIANTS OF HUMAN TASTE RECEPTOR GENES
 11 <130> FILE REFERENCE: 4239-66168-03
 C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/561,487
 C--> 13 <141> CURRENT FILING DATE: 2005-12-19
 13 <150> PRIOR APPLICATION NUMBER: PCT/US2004/019489
 14 <151> PRIOR FILING DATE: 2004-06-18
 16 <150> PRIOR APPLICATION NUMBER: US 60/480,035
 17 <151> PRIOR FILING DATE: 2003-06-19
 19 <160> NUMBER OF SEQ ID NOS: 264
 21 <170> SOFTWARE: PatentIn version 3.2
 23 <210> SEQ ID NO: 1
 24 <211> LENGTH: 900
 25 <212> TYPE: DNA
 26 <213> ORGANISM: Homo sapiens
 29 <220> FEATURE:
 30 <221> NAME/KEY: CDS
 31 <222> LOCATION: (1)..(900)
 33 <220> FEATURE:
 34 <221> NAME/KEY: variation
 35 <222> LOCATION: (332)..(332)
 36 <223> OTHER INFORMATION: r is g or a
 38 <220> FEATURE:
 39 <221> NAME/KEY: variation
 40 <222> LOCATION: (616)..(616) ?
 41 <223> OTHER INFORMATION: "C" is at 616 (p.2)
 43 <400> SEQUENCE: 1
 44 atg cta gag tct cac ctc att atc tat ttt ott ctt gca gtg ata caa 48
 45 Met Leu Glu Ser His Leu Ile Ile Tyr Phe Leu Leu Ala Val Ile Gln
 46 1 5 10 15
 48 ttt ctt ctt ggg att ttc aca aat ggc atc att gtg gtg gtg aat ggc 96
 49 Phe Leu Leu Gly Ile Phe Thr Asn Gly Ile Ile Val Val Val Asn Gly
 50 20 25 30
 52 att gac ttg atc aag cac aga aat atg gtc ccg ctg gat ctc ctt 144
 53 Ile Asp Leu Ile Lys His Arg Lys Met Ala Pro Leu Asp Leu Leu
 54 35 40 45
 56 tct tgt ctg gca gtt tct aga att ttt ctg cag ttg ttc atc ttc tac 192
 57 Ser Cys Leu Ala Val Ser Arg Ile Phe Leu Gln Leu Phe Ile Phe Tyr
 58 50 55 60

Does Not Comply
Corrected Diskette Needed

pp 1,6

"C" is at 616 (p.2)

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60	gtt	aat	gtg	att	gtt	atc	tcc	ttc	ata	gaa	tcc	atc	atg	tgt	tct	gcg	240
61	Val	Aaa	Val	Ile	Phe	Phe	Ile	Glu	Phe	Ile	Met	Cys	Ser	Ala			
62	65									70					75	80	
64	aat	tgt	gca	att	ctc	tta	ttt	ata	aat	gaa	ttg	gaa	ctt	tgg	ctt	gcc	286
65	Asn	Cys	Ala	Ile	Leu	Leu	Phe	Ile	Asn	Glu	Leu	Glu	Leu	Trp	Leu	Ala	
66										85					90	95	
68	aca	tgg	ctc	ggc	gtt	ttc	tat	tgt	gcc	aag	gtt	gcc	agc	gtc	crt	cac	336
69	Thr	Trp	Leu	Gly	Val	Phe	Tyr	Cys	Ala	Lys	Val	Ala	Ser	Val	Xaa	His	
70										100					105	110	
72	cca	ctc	ttc	atc	tgg	ttg	aag	atg	agg	ata	tcc	aag	ctg	gtc	cca	tgg	384
73	Pro	Leu	Phe	Ile	Trp	Leu	Lys	Met	Arg	Ile	Ser	Lys	Leu	Val	Pro	Trp	
74										115					120	125	
76	atg	atc	ctg	ggg	tct	ctg	cta	tat	gtt	tct	atg	att	tgt	gtt	ttc	cat	432
77	Met	Ile	Leu	Gly	Ser	Leu	Leu	Tyr	Val	Ser	Met	Ile	Cys	Val	Phe	His	
78										130					135	140	
80	agc	aaa	tat	gca	ggg	ttt	atg	gtc	cca	tac	tcc	cta	agg	aaa	ttt	ttc	480
81	Ser	Lys	Tyr	Ala	Gly	Phe	Met	Val	Pro	Tyr	Phe	Leu	Arg	Lys	Phe		
82	145									150					155	160	
84	tcc	caa	aat	gcc	aca	att	caa	aaa	gaa	gat	aca	ctg	gtc	ata	cag	att	528
85	Ser	Gln	Aaa	Ala	Thr	Ile	Gln	Lys	Glu	Asp	Thr	Leu	Ala	Ile	Gln	Ile	
86										165					170	175	
88	ttc	tct	ttt	gtt	gtc	gag	ttc	tcc	gtg	cca	ttg	ctt	atc	tcc	ttt		576
89	Phe	Ser	Phe	Val	Ala	Glu	Phe	Ser	Val	Pro	Leu	Ile	Phe	Leu	Phe		
90										180					185	190	
92	gtc	gtt	ttg	ttc	ttg	att	ttc	tct	ctg	ggg	agg	cac	acc	ggg	cac	atg	624
93	Ala	Val	Leu	Ile	Phe	Ser	Leu	Gly	Arg	His	Thr	Arg	Gln	Met			
94										195					200	205	
96	aga	aac	aca	gtg	ggc	ggc	agg	agg	gtt	cct	ggc	agg	gtt	gca	ccc	atc	672
97	Arg	Asn	Thr	Val	Ala	Gly	Ser	Arg	Val	Pro	Gly	Arg	Gly	Ala	Pro	Ile	
98										210					215	220	
100	agc	ggc	tgg	ttg	ctg	tct	atc	ctg	tcc	ttc	atc	ctc	tac	tcc	ttc	cac	720
101	Ser	Ala	Leu	Leu	Ser	Ile	Leu	Ser	Phe	Leu	Ile	Leu	Tyr	Phe	Ser	His	
102	225									230					235	240	
104	tgc	atg	ata	aaa	gtt	ttt	ctc	tct	tct	ctt	aaa	gtt	tac	ttt	cac	atc	768
105	Cys	Met	Ile	Lys	Val	Phe	Leu	Ser	Ser	Leu	Lys	Phe	His	Ile	Arg	Arg	
106										245					250	255	
108	ttc	atc	ttt	ctg	ttc	ttc	atc	ctt	gtg	att	gtt	ata	tac	cct	tct	ggg	816
109	Phe	Ile	Phe	Leu	Phe	Phe	Ile	Leu	Val	Ile	Gly	Ile	Tyr	Pro	Ser	Gly	
110										260					265	270	
112	cac	tct	ctc	atc	tta	att	tta	ggg	aat	cct	aaa	ttg	aaa	caa	aat	gca	864
113	His	Ser	Leu	Ile	Leu	Ile	Leu	Gly	Aaa	Pro	Lys	Leu	Lys	Gln	Asn	Ala	
114										275					280	285	
116	aaa	aag	ttc	ctc	ctc	cac	agt	aag	tgc	tgt	cag	tga					900
117	Lys	Lys	Phe	Leu	Leu	His	Ser	Lys	Cys	Cys	Gln						
118										290					295		
121	<210>	SEQ ID NO:	2														
122	<211>	LENGTH:	299														
123	<212>	TYPE:	PRT														
124	<213>	ORGANISM:	Homo sapiens														

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Input Set : A:\66168-03 Sequence Listing.txt
Output Set: N:\CRF4\12292005\J561487.raw

126 <220> FEATURE:
127 <221> NAME/KEY: misc feature
128 <222> LOCATION: (111)...(111)
129 <223> OTHER INFORMATION: The 'Xaa' at location 111 stands for Arg, or His.
131 <400> SEQUENCE: 2
133 Met Leu Glu Ser His Leu Ile Ile Tyr Phe Leu Leu Ala Val Ile Gln
134 1 5 10 15
137 Phe Leu Leu Gly Ile Phe Thr Asn Gly Ile Ile Val Val Val Asn Gly
138 20 25 30
141 Ile Asp Leu Ile Lys His Arg Lys Met Ala Pro Leu Asp Leu Leu Leu
142 35 40 45
145 Ser Cys Leu Ala Val Ser Arg Ile Phe Leu Gln Leu Phe Ile Phe Tyr
146 50 55 60
149 Val Asn Val Ile Val Ile Phe Phe Ile Glu Phe Ile Met Cys Ser Ala
150 65 70 75 80
153 Asn Cys Ala Ile Leu Leu Phe Ile Asn Glu Leu Glu Leu Trp Leu Ala
154 85 90 95
157 Thr Trp Leu Gly Val Phe Tyr Cys Ala Lys Val Ala Ser Val Xaa His
158 100 105 110
161 Pro Leu Phe Ile Trp Leu Lys Met Arg Ile Ser Lys Leu Val Pro Trp
162 115 120 125
165 Met Ile Leu Gly Ser Leu Leu Tyr Val Ser Met Ile Cys Val Phe His
166 130 135 140
169 Ser Lys Tyr Ala Gly Phe Met Val Pro Tyr Phe Leu Arg Lys Phe Phe
170 145 150 155 160
173 Ser Gln Asn Ala Thr Ile Gln Lys Glu Asp Thr Leu Ala Ile Gln Ile
174 165 170 175
177 Phe Ser Phe Val Ala Glu Phe Ser Val Pro Leu Leu Ile Phe Leu Phe
178 180 185 190
181 Ala Val Leu Leu Leu Ile Phe Ser Leu Gly Arg His Thr Arg Gln Met
182 195 200 205
185 Arg Asn Thr Val Ala Gly Ser Arg Val Pro Gly Arg Gly Ala Pro Ile
186 210 215 220
189 Ser Ala Leu Leu Ser Ile Leu Ser Phe Leu Ile Leu Tyr Phe Ser His
190 225 230 235 240
193 Cys Met Ile Lys Val Phe Leu Ser Ser Leu Lys Phe His Ile Arg Arg
194 245 250 255
197 Phe Ile Phe Leu Phe Ile Leu Val Ile Gly Ile Tyr Pro Ser Gly
198 260 265 270
201 His Ser Leu Ile Leu Ile Leu Gly Asn Pro Lys Leu Lys Gln Asn Ala
202 275 280 285
205 Lys Lys Phe Leu Leu His Ser Lys Cys Cys Gln
206 290 295
209 <210> SEQ ID NO: 3
210 <211> LENGTH: 951
211 <212> TYPE: DNA
212 <213> ORGANISM: Homo sapiens
215 <220> FEATURE:
216 <221> NAME/KEY: CDS

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Input Set : A:\66168-03 Sequence Listing.txt
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217 <222> LOCATION: (1)..(951)	
219 <220> FEATURE:	
220 <221> NAME/KEY: variation	
221 <222> LOCATION: (349)..(349)	
222 <223> OTHER INFORMATION: y is t or c	
224 <220> FEATURE:	
225 <221> NAME/KEY: variation	
226 <222> LOCATION: (807)..(807)	
227 <223> OTHER INFORMATION: y is t or c	
229 <220> FEATURE:	
230 <221> NAME/KEY: variation	
231 <222> LOCATION: (852)..(852)	
232 <223> OTHER INFORMATION: y is t or c	
234 <400> SEQUENCE: 3	
235 att atg gga ctc acc gag ggg qtg ttc ctg att ctg tct ggc act cag	48
236 Met Met Gly Leu Thr Glu Gly Val Phe Leu Ile Leu Ser Gly Thr Gln	
237 1 5 10 15	
239 ttg tca ctg ggg att ctg gtc aat tgt ttc att gag ttg gtc aat ggt	96
240 Phe Thr Leu Gly Ile Leu Val Asn Cys Phe Ile Glu Leu Val Asn Gly	
241 20 25 30	
243 agc agc tgg ttc aag acc aag aga atg tct ttg tct gac ttc atc atc	144
244 Ser Ser Trp Phe Lys Thr Lys Arg Met Ser Leu Ser Asp Phe Ile Ile	
245 35 40 45	
247 acc acc ctg gca ctc ttg agg atc att ctg ctg tgt att atc ttg act	192
248 Thr Thr Leu Ala Leu Leu Arg Ile Ile Leu Leu Cys Ile Ile Leu Thr	
249 50 55 60	
251 gat agt ttt tta ata gaa ttc tct ccc aac acc cat gat tcc ggg ata	240
252 Asp Ser Phe Leu Ile Glu Phe Ser Pro Asn Thr His Asp Ser Gly Ile	
253 65 70 75 80	
255 ata atg caa att att gat gtt tcc tgg aca ttt aca aac cat ctg agc	288
256 Ile Met Gln Ile Ile Asp Val Ser Trp Thr Phe Thr Asn His Leu Ser	
257 85 90 95	
259 att tgg ctt gcc acc tgt ctt ggt gtc ctc tac tgc ctg aaa atc gcc	336
260 Ile Trp Leu Ala Thr Cys Leu Gly Val Leu Tyr Cys Leu Lys Ile Ala	
261 100 105 110	
263 agt ttc tct cac ycc aca ttc ctc tgg ctc aag tgg aga gtt tct agg	384
264 Ser Phe Ser His Asn Thr Phe Leu Trp Leu Lys Trp Arg Val Ser Arg	
265 115 120 125	
267 gtg atg gta tgg atg ctg ttg ggt gca ctg ctc tta tcc tgt ggt agt	432
268 Val Met Val Trp Met Leu Leu Gly Ala Leu Leu Ser Cys Gly Ser	
269 130 135 140	
271 acc gca tct ctg atc aat gag ttt aag ctc tat tct gtc ttt agg gga	480
272 Thr Ala Ser Leu Ile Asn Glu Phe Lys Leu Tyr Ser Val Phe Arg Gly	
273 145 150 155 160	
275 att gag gcc acc agg aat gtg act gaa cac ttc aga aag aag agg agt	528
276 Ile Glu Ala Thr Arg Asn Val Thr Glu His Phe Arg Lys Lys Arg Ser	
277 165 170 175	
279 gag tat tat ctg atc cat gtt ctt ggg act ctg tgg tac ctg cct ccc	576
280 Glu Tyr Tyr Leu Ile His Val Leu Gly Thr Leu Trp Tyr Leu Pro Pro	

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281	180	185	190	
283 tta att gtg tcc ctg gcc tcc tac tct ttg ctc atc ttc tcc ctg ggg				624
284 Leu Ile Val Ser Leu Ala Ser Tyr Ser Leu Ile Phe Ser Leu Gly				
285 195 200 205				
287 agg cac aca cgg cag atg ctg caa aat ggg aca agc tcc aga gat cca				672
288 Arg His Thr Arg Gln Met Leu Gln Asn Gly Thr Ser Ser Arg Asp Pro				
289 210 215 220				
291 acc act gag gcc cac aag agg gcc atc aca atc atc ctt tcc ttc				720
292 Thr Thr Glu Ala His Lys Arg Ala Ile Arg Ile Ile Leu Ser Phe Phe				
293 225 230 235 240				
295 ttt ctc ttc tta ctt tac ttt ctt got ttc tta att gca tca ttt ggt				768
296 Phe Leu Phe Leu Tyr Phe Leu Ala Phe Leu Ile Ala Ser Phe Gly				
297 245 250 255				
299 aat ttc cta cca aza acc aag atg got aag atg att ggy gaa gta atg				816
300 Asn Asn Phe Leu Phe Lys Thr Lys Met Ala Lys Met Ile Xaa Glu Val Met				
301 260 265 270				
303 aca atg ttt tat cct gct ggc cag ctc ttt att cty att ctg ggg aac				864
304 Thr Met Phe Tyr Pro Ala Gly His Ser Phe Ile Xaa Ile Leu Gly Asn				
305 275 280 285				
307 agt aag ctg aag cag aca ttt gta gtg atg ctc cgg tgt gag tct ggt				912
308 Ser Lys Leu Lys Gln Thr Phe Val Val Met Leu Arg Cys Glu Ser Gly				
309 290 295 300				
311 cat ctg aag cct gga tcc aag gga ccc att ttc tct tag				951
312 His Leu Lys Pro Gly Ser Lys Gly Pro Ile Phe Ser				
313 305 310 315				
316 <210> SEQ ID NO: 4				
317 <211> LENGTH: 316				
318 <212> TYPE: PRT				
319 <213> ORGANISM: Homo sapiens				
321 <220> FEATURE:				
322 <221> NAME/KEY: misc_feature				
323 <222> LOCATION: (117)..(117)				
324 <223> OTHER INFORMATION: The 'Xaa' at location 117 stands for Pro, or Ser.				
326 <220> FEATURE:				
327 <221> NAME/KEY: misc_feature				
328 <222> LOCATION: (269)..(269)				
329 <223> OTHER INFORMATION: The 'Xaa' at location 269 stands for Gly.				
331 <220> FEATURE:				
332 <221> NAME/KEY: misc_feature				
333 <222> LOCATION: (284)..(284)				
334 <223> OTHER INFORMATION: The 'Xaa' at location 284 stands for Leu.				
336 <400> SEQUENCE: 4				
338 Met Met Gly Leu Thr Glu Gly Val Phe Leu Ile Leu Ser Gly Thr Gln				
339 1 5 10 15				
342 Phe Thr Leu Gly Ile Leu Val Asn Cys Phe Ile Glu Leu Val Asn Gly				
343 20 25 30				
346 Ser Ser Trp Phe Lys Thr Lys Arg Met Ser Leu Ser Asp Phe Ile Ile				
347 35 40 45				
350 Thr Thr Leu Ala Leu Leu Arg Ile Ile Leu Leu Cys Ile Ile Leu Thr				

RAW SEQUENCE LISTING ERROR SUMMARY
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 111
Seq#:2; Xaa Pos. 111
Seq#:3; Xaa Pos. 117,269,284
Seq#:4; Xaa Pos. 117,269,284
Seq#:5; Xaa Pos. 3,7,62,96,171
Seq#:6; Xaa Pos. 3,7,62,96,171
Seq#:7; Xaa Pos. 26,79,113,167,213,294
Seq#:8; Xaa Pos. 26,79,113,167,213,294
Seq#:9; Xaa Pos. 263
Seq#:10; Xaa Pos. 263
Seq#:11; Xaa Pos. 166,183,277,308
Seq#:12; Xaa Pos. 166,183,277,308
Seq#:13; Xaa Pos. 67,150,187,289,294
Seq#:14; Xaa Pos. 67,150,187,289,294
Seq#:15; Xaa Pos. 40,156,174,188,209
Seq#:16; Xaa Pos. 40,156,174,188,209
Seq#:17; Xaa Pos. 259
Seq#:18; Xaa Pos. 259
Seq#:19; Xaa Pos. 86
Seq#:20; Xaa Pos. 86
Seq#:21; Xaa Pos. 100,101,154,172,222,282
Seq#:22; Xaa Pos. 100,101,154,172,222,282
Seq#:23; Xaa Pos. 49,80,262,274,296
Seq#:24; Xaa Pos. 49,80,262,274,296
Seq#:25; Xaa Pos. 193,197
Seq#:26; Xaa Pos. 193,197
Seq#:27; Xaa Pos. 187,273
Seq#:28; Xaa Pos. 187,273
Seq#:29; Xaa Pos. 63,127,195
Seq#:30; Xaa Pos. 63,127,195
Seq#:31; Xaa Pos. 35,90,154,170,200,212,221,294,295,297
Seq#:32; Xaa Pos. 35,90,154,170,200,212,221,294,295,297
Seq#:33; Xaa Pos. 35,162,200,217,227,240,248,276,281
Seq#:34; Xaa Pos. 35,162,200,217,227,240,248,276,281
Seq#:35; Xaa Pos. 36,228,250,288
Seq#:36; Xaa Pos. 36,228,250,288
Seq#:39; Xaa Pos. 32,109,140,152,225,240,267,295,299
Seq#:40; Xaa Pos. 32,109,140,152,225,240,267,295,299
Seq#:41; Xaa Pos. 141,143,148,172,236,252,255,270
Seq#:42; Xaa Pos. 141,143,148,172,236,252,255,270
Seq#:45; Xaa Pos. 199
Seq#:46; Xaa Pos. 199

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L:13 M:270 C: Current Application Number differs, Replaced Current Application No
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:69 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:336
L:157 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:96
L:264 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:384
L:300 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:816
L:304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:864
L:366 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:112
L:402 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:256
L:406 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:272
L:455 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:48
L:467 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:192
L:475 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:288
L:495 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:528
L:563 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:575 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:48
L:583 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#: after pos.:80
L:603 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:160
L:685 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:96
L:697 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:240
L:709 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:384
L:721 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:528
L:733 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:672
L:753 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:900
L:798 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:16
L:810 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:64
L:822 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:112
L:834 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:160
L:846 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:208
L:866 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:288
L:952 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:816
L:1044 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:256
L:1132 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:528
L:1136 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:576
L:1160 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:864
L:1168 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:930
L:1239 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:160
L:1243 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:176
L:1267 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:272
L:1275 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:304
L:1332 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:240
L:1352 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:480
L:1360 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:576
L:1388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:912
L:1444 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:64
L:1464 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:144
L:1472 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:176
L:1500 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:288

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L:1553 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:144
 L:1581 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:480
 L:1585 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:528
 L:1589 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:576
 L:1597 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:672
 L:1665 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:32
 L:1693 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:144
 L:1697 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:160
 L:1701 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:176
 L:1709 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:208
 L:1818 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:816
 L:1906 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:256
 L:1955 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:288
 L:2047 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:80
 L:2173 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:336
 L:2185 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:480
 L:2189 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:528
 L:2201 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:672
 L:2217 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:864
 L:2286 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:96
 L:2298 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:144
 L:2302 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:160
 L:2314 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:208
 L:2330 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:272
 L:2387 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:192
 L:2391 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:240
 L:2439 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:816
 L:2443 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:864
 L:2447 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:912
 L:2503 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:48
 L:2507 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:64
 L:2555 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:256
 L:2559 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:272
 L:2563 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:288
 L:2645 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:624
 L:2750 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:192
 L:2856 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:576
 L:2880 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:864
 L:2957 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:176
 L:2981 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:272
 L:3036 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:192
 L:3052 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:384
 L:3072 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:624
 L:3138 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:48
 L:3154 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:112
 L:3174 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:192
 L:3276 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:144
 L:3288 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:288
 L:3304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:480

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/561,487

DATE: 12/29/2005
TIME: 15:03:41

Input Set : A:\66168-03 Sequence Listing.txt
Output Set: N:\CRF4\12292005\J561487.raw

L:3308 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:528
L:3316 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:624
L:3320 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:672
L:3340 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:912
L:3413 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:32
L:3425 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:80
L:3441 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:144
L:3445 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:160
L:3453 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:192
L:3457 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:208
L:3477 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:288
L:3550 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:144
L:3582 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:528
L:3590 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:624
L:3594 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:672
L:3598 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:720
L:3602 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:768
L:3610 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:864
L:3682 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:32
L:3714 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:160
L:3722 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:192
L:3726 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:208
L:3730 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:224
L:3734 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:240
L:3742 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:272
L:3794 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:144
L:3842 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:720
L:3846 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:768
L:3854 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:864
L:3897 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:32
L:3945 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:224
L:3949 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:240
L:3957 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:272
L:4205 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:96
L:4225 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:336
L:4233 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:432
L:4237 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:480
L:4257 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:720
L:4265 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:816
L:4273 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:900
L:4333 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:16
L:4353 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:96
L:4361 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:128
L:4365 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:144
L:4385 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:224
L:4393 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:256
L:4401 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:288
L:4489 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:432
L:4493 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:480

VERIFICATION SUMMARY DATE: 12/29/2005
PATENT APPLICATION: US/10/561,487 TIME: 15:03:41

Input Set : A:\66168-03 Sequence Listing.txt
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L:4497 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:528
L:4513 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:720
L:4517 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:768
L:4521 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:816
L:4616 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:128
L:4620 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:144
L:4624 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:160
L:4640 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:224
L:4644 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:240
L:4648 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:256
L:4900 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:624
L:4992 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:192